

A QUEST FOR *MACULINEA*
IN WESTERN FRANCE, 1986

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For some years I have been inspecting sites in Britain that might support the large blue butterfly (*Maculinea arion* L.). Though my quest was once successful, though due to information rather than my own searches, much of my effort has concentrated in the Cotswolds, where in terms of seeing the insect I have drawn a total blank, although I have found some very promising sites including one that holds one of the best marsh fritillary (*Eurodryas aurinia* Rott.) colonies that I have seen, numbering probably a few thousand over quite a large area. The Cotswold *arion*, along with the old Barnwell Wold insects, was always regarded as being of a more 'iron blue' than those from the South-West and from pictures, there does seem to be a bit more purple in the wings and the spots on the upper hind wing, according to the illustration in E. B. Ford's *Butterflies*, are more pronounced and ringed. A. D. A. Russwurm in his *Aberrations of British Butterflies*, states that the Cotswold race resembles that from Brittany.

Although *arion* is now declared to be extinct in Brittany and has retreated from many northern haunts, I thought there might be some merit in at least looking at some of the old sites as this seemed to present the only possibility, faint as it was, of seeing the 'Cotswold' race. The excellent section on (*Lycaena*) *arion* in Tutt's *British Butterflies* gives a full account of then known European localities including northern France but not much on the times of appearance. The only reference that I could find was July 14, 1899 in the Petit Val, Val André (Turner). Though I have the *Record* from 1957, no one seems to have written about Brittany so, as I had some leave to fit in, I decided, almost on the spur of the moment to book my place on the Dover-Calais ferry for July 5th, returning on 13th.

The first day I drove as far as Caen but on the second day, Sunday, 6th, unfortunately, due to a presumed short circuit, the wiring under the car bonnet was mysteriously found to be burnt out, so I had to spend two days in Avranches. I could easily have been marooned in less attractive or interesting surroundings as there was a splendid view of Mont-Saint-Michel and quite by chance came across a stone plaque on the ground, with the short remains of a column alongside, where King Henry II paid penance in front of the Pope for his part in the murder of Thomas A'Becket. That is all that is left of the cathedral that once stood there.

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However, I did take a walk from Ponts, on the edge of the town to St. Brice which was almost totally devoid of entomological interest. The road side had plenty of meadow browns (*Maniola jurtina* L.), two speckled woods (*Parage aegeria* L.) tending towards the southern continental form with rich yellow replacing the cream of British specimens. There were also some large skippers (*Ochlodes venata* Bremer and Grey). An area of woodland lined with masses of brambles looked promising but all it produced were dozens more *jurtina*, some more *venata*, one white admiral (*Ladoga camilla* L.) and a fresh painted lady (*Vanessa cardui* L.). Only when I came to a flowery meadow with a stream running through it did anything more exciting appear in the form of a good colony of marbled whites (*Melanargia galathea* L.) and a single swallowtail (*Papilio machaon* L.) together with plenty of common blues (*Polyommatus icarus* Rott.). Almost back where I started near Ponts, a small woodland ride produced small and green-veined whites (*Pieris rapae* L. and *P. napi* L.), one red admiral (*Vanessa atalanta* L.) a dwarf comma (*Polygonia c-album* L.) and a humming-bird hawk moth (*Macroglossum stellatarum* L.).

At last on Tuesday afternoon, 8th July, my car was ready and I headed for the area of the old sites. The first call was to be in the Department of Cotes du Nord at Val André where Turner had seen *arion* on July 14th, 1899. Based upon the description 'in one corner of an orchard of the Petit Val (Cotes du Nord) on a bank overgrown with broom and bramble, with *Melanargia galathea*, *Epinephile tithonus*, *E. janira* and swarms of other things', it was inconceivable that such a place would remain nearly a hundred years later. Val André is now a popular and growing seaside resort and even a call at the tourist office failed to reveal any clue as to the location of the Petit Val. The nearest I came to it (and perhaps in reality) was an antiques shopping complex carrying that name. The 1899 record hardly justified more time so I made for the two sites given in Finisterre, 'south and west of the canton of Pont l'Abbé, abundant on the heaths of Kermenhir and Loctudy (Picquenard)'. Despite searching various maps before setting out, I could not find Kermenhir. However, fortuitously while looking for a hotel in the attractive city of Quimper, I came across a large scale map of the area in a window and Kermenhir was shown as being roughly half-way along the D2 between Pont l'Abbé and Loctudy.

Next day, 9th, I set off for Kermenhir, not really imagining from my observations of the intensification of agriculture and land use in northern France in general, that there would be much chance of seeing the original habitat. My fears were fully realised as the heath has virtually disappeared, mainly due to agriculture. The only fragment that bore any possible relation to the old heath was an old quarry, the sides of which were almost totally covered by

gorse. Clearly it was a waste of time to stay but I did see a single *L. camilla* and surprising for the late date, a male orange tip (*Anthocharis cardamines* L.). At Loctudy there was no indication of where the 'heath' might be so I drove around in a fairly haphazard way. The area has been turned over to holiday bungalows and agriculture and it was soon clear that there was no heath left. Its' location could be guessed from the odd clump of Scotch Pines but apart from tiny, overgrown fragments, all had disappeared. In a state of some despondency I made the mistake of deciding to go further south. Decisions in my experience, made in an emotional state, are always bad ones and this was no exception. Though I had noted that *arion* had been recorded at Menez Hom, my knowledge of Brittany was insufficient to realise that it was within a national park comprising a range of low hills and therefore potentially more promising.

However, I was driven by the description in Tutt (by Oberthur) of the site at Monterfil, west of Rennes, 'a "lande", a kind of rough heathland, no part of which is level, yet whose acclivities and depressions could not be described except in a toy or fairyland sense, as hills and valleys, and where the short vegetation is constantly interrupted by outcrops of stone'. While having a welcome tea at an unexpected patisserie at Plélan-le-Grand I went through in my mind what might have happened to this habitat. In this place it seems to have been present in some years and absent in others. Someone using the initials GW inserted an item in parenthesis with an optimistic comment at the end, 'I do not think that there is in any way a question of cultivation either'. I am afraid that I could not be as optimistic and village spread and agriculture seemed likely. My worst fears were fully realised as upon arriving at Monterfil, Oberthur's site could not be found despite driving out of the village in all directions. However, I did find some outcrops of rock that had become features in new gardens and it soon became clear that the habitat has been absorbed into greater Monterfil as well as agricultural intensification. Apart from the odd few rocks in gardens and overgrown fragments in fields, Oberthur's site had disappeared with barely a trace. As I drove in I noticed what looked like a war memorial standing high up on an area of heathland and eventually found the path to it. Sadly, although it was covered with heather, there was no sign of thyme or marjoram. Ironically, I could just make out the name 'Oberthur' on the lichen encrusted stone which could have been, though doubtless was not, a fitting memorial to an entomologist who knew it in happier times. I am glad he never saw it as it is now.

On the way out of Monterfil, perhaps a couple of kilometres away, I passed an area of heath that looked worth examining. A small butterfly with flight that was unfamiliar turned out to be the large chequered skipper (*Heteropterus morpheus* Pallas) in an

unusual habitat according to 'Higgins and Riley', which states that shady areas or light woodland are normal. Its' curious hopping flight in which it seems to go on forever without settling is unusual for the Hesperids. Also present was the small heath (*Coenonympha pamphilus* L.) pearly heath (*C. arcania* L.) marbled white (*Melanargia galathea* L.) and silver-studded blue (*Plebejus argus* L.) in a typical setting. Sadly this was not part of the lost Monterfil habitat and not suitable for *arion*. In the Department of Ille-et-Vilaine, apart from Monterfil, there were two areas to look at, Laille and Bourg-des-Comptes along the R. Vilaine, south of Rennes. I had no clue where to look and again, the level of agricultural development seemed to indicate that I would probably be wasting my time in this rather flat area, so apart from driving through, I did not linger. Had I referred to the 1:10,000 topographical map, I might have spent a little longer as it shows some land sloping down to the river, apparently clothed in orchards. Remembering Turner's experience in the Petit Val, it may just occur there and a further visit seems desirable.

I had decided to look at the nearby Loire Valley and of the four places referred to in Tutt under the Department of Maine-et-Loire, the first, Chaloché, could not be found on the map. After a considerable search, the nearest in spelling was Chaloché, which appeared to be a chateau, a few km. NE of Angers. This seemed at the time to be a bit too tenuous so, perhaps mistakenly, I did not visit it. The next place that looked vaguely promising was Milly, within an extensive forested area, west of Saumur but on the way there, on 10th July, I called at Pignerolle, (with an 's' in Tutt), a chateau open to visitors, just beyond the town on its' eastern edge. The immediate environs looked useless but I did look at a piece of unused farmland alongside the main road. Here were dozens of *M. galathea*, some *M. jurtina* and one brown argus (*Aricia agestis* D. & S.). I decided to go to Milly without delay but where should I concentrate my efforts, the area around the village or the Forest of Milly? The latter somehow seemed more promising. While driving around, I came across a small rectangular and artificial clearing that looked worth exploring. This proved to be so as it produced a colony of the large tortoiseshell (*Nymphalis polychloros* L.) and as this was the first time that I had seen this fine butterfly in the wild, I spent a happy morning watching their antics. An oak tree with sap running from a wound about a foot above ground and on the far side of the tree from the clearing was most attractive to two individuals which almost disappeared between the trunk and the bark, although they were very alert and I could not obtain a photograph of the event. Even when the sun had moved to the other side of the clearing, one butterfly still maintained its' interest there. Also present were the heath fritillary (*Melicta athalia* Rott.) abundant, two purple emperors (*Apatura iris* L.) which were sharing an oak tree with

three or four *polychloros* and shared the same habit of spiralling round the upper trunk doubtless looking for exuding sap. The sloe hairstreak (*Nordmannia acaciae* Fab.) was very common on bramble blossoms and *H. morpheus* was behaving in its' usual way in the grass. There was one single brief visit from the great banded grayling (*Brintesia circe* Fab.). I drove around other parts of the forest and also noted the silver-washed fritillary (*Argynnis paphia* L.). The only evidence of the foodplant was of thyme growing over the gravel at the sides of the roads and this did not seem to be altogether suitable for *arion*.

The last place named in the Department was le Vaudelnay, where Delahaye, who had provided the information for the other habitats in the area, described it as common. On the Michelin yellow series I could only find Vaudelnay, which I assumed was the same place. As with the places south of Rennes, having no other information, I merely drove around this now unlikely looking area.

This was now time for a decision. It was, it seemed to me, to be getting late in the season to see *arion* so far south on low-lying ground, even had I unbeknown, stumbled across a habitat following a more intensive search in the largely unexplored areas. After consulting 'Higgins and Riley' and 'Higgins and Hargreaves', I decided to try a totally different area that again, I did not recall reading about in the *Record*. The distribution maps from the above books show the area south of Bordeaux, les Landes, as somewhere possibly for the scarce large blue (*Maculinea teleius* Berg.) and the large copper (*Lycaena dispar* Haw). As it seems to be an area not often visited by entomologists, I decided to explore it. The area is a vast coniferous forest, lens shaped, some 220km. north to south and about 130 kms at the widest. Before long I was on the A10 motorway heading south. I spent the night at Parentis-en-Born in the heart of les Landes. With the aid of the large scale topographical maps, I could work out a few places that had to be visited on a very tight schedule the next day. Upon leaving Parentis, a small area of heath was examined and produced a single *M. athalia*.

A sight rarely encountered any more in Britain, was of someone walking along the road carrying a butterfly net. At last, I thought, here must be someone who can put me in the right direction. He turned out to be M. Moulin from Lille on holiday. He did not know the area and after some pleasantries we went our separate ways.

The first planned port of call was the periphery of Lac Blanc near Tosse, a few km. north of Bayonne. An area of dry bog produced a single woodland brown (*Lopinga achine* Scop.) and a single long-tailed blue (*Lampides boeticus* L.). Another nearby and outwardly promising similar area produced a single short-tailed blue

(*Everes argiades* Pallas) and these turned up in small numbers in other places in the vicinity.

The next place I decided to visit was an isolated area of bog some way beyond the town of Mont-de-Marsin and near the village of Vielle-Soubiran. Approaching the village, I stopped at a flowery spot by the side of the road in the forest but *H. morpheus* was all that was about. Unfortunately, the area seems to have changed since my map was produced and I did not locate the area in question though I did come across a much smaller bog. There were few butterflies, though there were a few dryads, (*Minois dryas* Scopoli) and *C. pamphilus*. A large white banded grayling was seen but time was pressing and I did not have time to pursue it for identification.

The next place to visit was another area of bog as indicated on the map between the villages of Sore and St. Symphorien. By now I was beginning to regard the whole area as very unpromising. It seemed to be undergoing considerable change by drainage and forestry operations and there seemed to be very little undisturbed wetland apart from the areas near lakes. The above mentioned bog seemed to have disappeared into forestry and was certainly not identifiable. The last area that I was determined to see was the Marais de Talaris, in the north of the region. This was a nature reserve between the Lakes d'Hourtin — Carcans and Etang de Lacanan. The long straight roads through the vast conifer forest seemed endless but I did eventually arrive and parked near the Canal de Jonction which connects the lakes and traverses the Marais. There is a public footpath on both sides and I walked for about half a mile down the Western one but it soon became clear that this area was useless also, resembling an area of the Norfolk Broads reverting to scrub or carr.

Although I had only scratched the surface of this vast area, the extent of drainage and forestry operations seemed to rule out much chance of my main quarries occurring there. I could now make for Bordeaux and get onto the motorway heading north for the obligatory inspection of Menez Hom. The national park consists of a few low, flat topped hills, largely wooded around the base. A road leads up to the top of Menez Hom and is much used by motorists driving up to admire the view. The road passes through heathland and at the top there are more exposed rocks and a wider range of wild flowers. However, there was no sign of thyme or marjoram. The hillside gave the impression of having been burnt, the smooth covering of heather looking rather recent but this is pure guesswork. Clearly it was quite unsuitable for *arion*. I did examine an adjoining lower hill which seemed from the road to have a slightly greater variety of flowers. Again, although I undertook a fairly thorough search, there was no sign of the foodplants.

Based upon these observations, it was hard to imagine that the area once supported the large blue and I was forced to speculate that there had perhaps been a mistaken identity.

This concluded the *arion* search and though unsuccessful, I was glad to have satisfied myself as to the current state of ex-habitats. The search was not thorough enough in the Rennes or Saumur areas and I would like to explore them in greater depth at the right season.

On the return journey I had decided to look at the large area of forest in the Compiègne area but unfortunately the last day, Sunday, July 13th was cloudy and it seemed a waste of time to even stop. I just made the ferry on time, sadder but wiser though resolved to put Brittany more thoroughly to the test next time.

My thanks are due to Mr. Nicholas Derry for supplying the background information.

Notes and Observations

A NOTE ON THE LIFE HISTORY OF PHYLLODECTA POLARIS SCHNEIDER (COL.: CHRYSOMELIDAE). – Sometime ago, my friend Dr. M. Cox told me that the larva of the montane chrysomelid *P. polaris* had never been formally described and suggested that I looked for it on its presumed food plant *Salix herbacea* L. whenever I had an opportunity. One such arose on 5.viii.1987 when climbing with members of my family on Beinn Eighe in Wester Ross, the site at which the beetle was first found in Britain (Morris, M.G. 1970 *Entomologist's mon. Mag.* **106**, 48). Near the summit, at an altitude of about 950m, there was a large patch of the *Salix* growing among the moss *Racomitrium lanuginosum* (Hedw) Brid. We collected some of this moss mixed with *Salix*, sieved it and put the sievings in a "Winkler" extractor.

During the subsequent 48 hr, three small black chrysomelid larvae, ranging in length from 2 - 3mm appeared in the extractor. They were given fresh leaves of the *Salix* which were readily eaten. As was described by Larsson & Gigja. (1959 *The Zoology of Iceland* **3**, pt 46a Coleoptera 1 Synopsis p 185), the larvae chewed usually from the underside without penetrating the leaf and avoiding the ribs, leaving a transparent, whole or part leaf "skeleton". If a leaf was placed in the container with the upper surface downwards, the larvae ate into what was naturally the upper surface, suggesting that gravity determined which surface was chewed rather than the surface structure of the leaf.

On 15.viii.1987, one of the larvae, by then about 5mm in length, pupated. The cream coloured pupa was discovered lying on the bottom of the container. The remaining two larvae, similarly